

REMARKS/ARGUMENTS

The Office Action mailed September 13, 2004 has been carefully considered. Reconsideration in view of the following remarks is respectfully requested.

Applicants are further grateful for the indication of allowability of claims 3-8, 27-32, 51-56, and 75-80, subject to the 35 U.S.C. §112 issues outlined in the Office Action and to their re-writing in independent form. Claims 3-8, 27-32, 51-56, and 75-80 have been rewritten in independent form as new claims 97-120 to include the limitations of independent claims 1, 25, 49, and 73 and intervening claims 2, 26, 50, and 74, respectively.

Claims 9-24, 33-48, 57-72, and 81-96 have been canceled, without prejudice or disclaimer of the subject matter contained therein.

In view of the Examiner's earlier restriction requirement, Applicant retains the right to present claims 9-24, 33-48, 57-72, and 81-96 in a divisional Application.

New claims 97-120 also particularly point out and distinctly claim subject matter regarded as the invention. Support for these claims may be found in the specification, page #, lines #.

The First 35 U.S.C. § 103 Rejection

Claims 1, 25, 49, and 73 were rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Waters¹ in view of McCann et al.,². This rejection is respectfully traversed.

According to the Manual of Patent Examining Procedure (M.P.E.P.),

To establish a *prima facie* case of obviousness, three basic criteria must be met. First there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in the applicant's disclosure.³

The Office Action contends that McCann, col. 5, lines 19-24, teaches “requesting IP address usage data from one or more of said network edge devices” and “receiving said requested IP address usage data”. Applicant maintains, however, that this reference fails to teach IP address usage data of any kind, let alone requesting and receiving such usage data from a network edge device.

The cited portion of McCann states that “[i]n response to the determination that a non-local dynamic IP address is preferred or that a local dynamic IP address from the local pool of local dynamic IP addresses 26 is unable to be assigned, the local network 20 of the local coverage area 12 selectively communicates with a remote network 32”.

¹ U.S. Patent 6,564,216

² U.S. Patent 6,052,725

³ M.P.E.P § 2143.

Applicant fails to understand how this teaches requesting IP address usage data. This portion of McCann appears to indicate that if the local network determines that the user requesting an IP address has specifically asked for a non-local IP address or if the local network is out of local IP addresses, then the local network can communicate with a remote network to receive an IP address. There is no mention of IP address usage data, nor communicating IP address usage data to a central component. For these reasons, Applicant respectfully submits that claim 1 is in condition for allowance.

Claims 25, 49, and 73 contain similar limitations as claim 1, and thus Applicant respectfully maintains that these claims are also in condition for allowance.

The Second 35 U.S.C. § 103 Rejection

Claims 2, 26, 50, and 74 were rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Waters in view of McCann et al., and further in view of Fisher et al.⁴. This rejection is respectfully traversed.

The Office Action alleges that Fisher, page 4, paragraph 53, and page 7, paragraph 104, teaches a high watermark that indicates the maximum number of IP addresses used by said network edge device. However, the only mention of a maximum in these sections of Fisher are at page 7, paragraph 104, which states that there can be a "limit on the maximum number of resources that are allocated in the resource pool" in the

⁴ U.S. Publication No. 2002/0013847

declaration. Applicant respectfully maintains that this is not the same as a high watermark.

Claim 2 actually contains two elements relating to watermarks. The first is the high watermark itself, which claim 2 states "indicates the maximum number of IP addresses used by said network edge device". The second is the high watermark limit, against which it is determined whether or not the high watermark exceeds. Thus, if the high watermark exceeds the high watermark limit, an action occurs.

Applicant respectfully maintains that Fisher does not teach a high watermark or a high watermark limit. Rather, Fisher teaches a limit on the maximum number of resources allocated in a resource pool. While this is indeed a limit, it is not a limit on a high watermark, and thus Applicant maintains it is not a high watermark limit. A high watermark has been defined by the claim as a maximum number of IP addresses used by the network edge device. The high watermark itself is not a limit, but a measurement. It is a measurement of the maximum number of IP addresses used. This number may then be compared to a limit for such watermarks, which may then be valuable in determining whether or not pool allocation has been handled efficiently. This can be useful in reallocating the local IP address pools.

An example is provided herein to illustrate this difference. Applicant recognizes that this example is not part of the claims, but feels that this example will be helpful to the Patent Office in understanding the difference between a high watermark, a high

watermark limit, and a simple limit on the maximum number of IP addresses to be allocated. In this example, a local IP pool may have 12 addresses available. Given that fact, it is fair to say that the local IP pool has a simple limit on the maximum number of IP addresses it can allocate of 12. It can allocate only 12 at a time. If 12 have been allocated and another request comes in, it must either forward the request somewhere else to be fulfilled, or it must deny the request, but it cannot itself allocate another IP address until one has been freed. In this example, however, the local IP pool may have a high watermark limit of 10 addresses. In this case, the local IP pool can continue to allocate IP addresses once 10 addresses have been allocated, but an action may be triggered when the high watermark limit is compared to the high watermark itself. The high watermark itself, being a measurement, will depend upon the actual number of IP addresses allocated. Thus, suppose 10 addresses have been allocated and the user requests an 11th. The system in this case may allocate the 11th, even though it exceeds the high watermark limit. However, this exceeding of the high watermark limit may trigger another action, namely the global IP pool may determine that even though the local IP pool has not exceeded its actual limit of IP addresses, it may be beneficial to increase its actual limit to improve efficiency.

Additionally, the fact that it is a high watermark as opposed to a simple measurement of IP addresses in use, allows the system to merely check the value periodically, as opposed to continuously. Thus, suppose that at one point all 12 addresses were allocated simultaneously, but at the point that the system is checking the measurement, only 3 addresses are allocated. The fact that it is a high watermark, and

thus indicates the MAXIMUM number of addresses used, would allow the system to see in fact that 12 addresses had been allocated at one point, even though they are not allocated right now.

For these reasons, Applicant respectfully submits that claim 2 is in condition for allowance.

Claims 26, 50, and 74 contain similar limitations as claim 2, and thus Applicant respectfully maintains that these claims are also in condition for allowance.

As to dependent claims 3-8, 27-32, 51-56 and 75-80, the argument set forth above is equally applicable here. The base claims being allowable, the dependent claims must also be allowable.

Conclusion

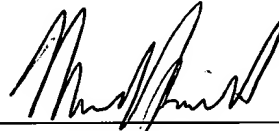
It is believed that this Amendment places the above-identified patent application into condition for allowance. Early favorable consideration of this Amendment is earnestly solicited.

If, in the opinion of the Examiner, an interview would expedite the prosecution of this application, the Examiner is invited to call the undersigned attorney at the number indicated below.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Please charge any additional required fee or credit any overpayment not otherwise paid or credited to our deposit account No. 50-1698.

Respectfully submitted,
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